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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,431	08/03/2001	Gene E. Kirila II	13174.7US11	7423

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MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER
CAO, TRANG H

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application No. 09/922,431	Applicant(s) KIRILA ET AL.	
	Examiner Trang H. Cao	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *Aug. 3, 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *Aug. 3, 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show elements 10, 38, and 110' as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

In page 17, lines 4 of the Specification, "remote location 112" should read -- manufacturing location 112--.

Numerals 10 and 38 (pages 11-16), 110' (page 18) are not shown in drawings.

Appropriate correction is required.

Claim Objections

3. Claims 1, 10, and 19 are objected to because of the following informalities:

In claims 1, 10, and 19, part (c), the phrase "said remote locations" should read --said remote location--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemoine (U.S. Patent No. 5,631,839) in view of Foster (U.S. Patent No. 5,565,162)

Regarding claims 1, 10, and 19, Lemoine discloses a system for monitor and control from a remote location of at least one discrete measurable parameter of a manufacturing process at a manufacturing location (abstract; col. 3, lines 31-33; col. 6, lines 14-17) comprising:

(a) At least one sensor measuring said parameter of the manufacturing process (fig. 3, element 20; col. 3, lines 34-38);

(b) A signal generator connected to each of said at least one sensor for producing a digital signal for each of said at least one sensor (col. 3, lines 39-44);

(c) and (e) Lemoine's system for remotely monitoring and controlling a manufacturing process further comprising a local area network (figs. 1 and 5, element 10) to convey:

(1) The signals from the sensors (fig. 1, element C; col. 1, lines 34-37 and 47-56; fig. 5, element 20) to a remote location (fig. 1, element 12); and

(2) The operational instructions from the remote location to the actuators (fig. 1, element A; col. 2, lines 9-14; fig. 5, element 33).

It is considered inherent that there are a transmitter for transmitting the signals from the manufacturing location to the remote location and another one for sending the operational instructions from the remote location to the manufacturing location.

(d) A processor provided at said remote location for processing said transmitted signals (fig. 1, element 12).

Lemoine also explicitly discloses that the manufacturing process is implemented by a machine in order to convert a raw material into a finished product (col. 1, lines 21-23) and further using sensors for monitoring the flow rate, pressure, temperature, speed, and any basic elements of the manufacturing process (col. 1, lines 23-32).

However, Lemoine fails to teach that the manufacturing process is the process for manufacturing composite articles/ manufacturing a fiber reinforced thermoset product/ reheating thermoplastic.

Foster discloses a system for manufacturing a fiber reinforced composite article by using the resin transfer molding (RTM) (col. 1, lines 6-8 and col. 5, lines 21-24). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply Foster's techniques into the invention of Lemoine as specified above because as taught by Foster, the system for manufacturing process for a fiber reinforced composite article would have been useful for reinforcing various type structures for aerospace application (Foster, col. 1, lines 12-16).

Regarding claims 2-9, 11-18, and 20-27, Lemoine in view of Foster disclose a system as recited in claims 1, 10, and 19 above that the manufacturing process for manufacturing a fiber reinforced composite article is implemented by a machine in order to convert a raw material into a finished product and further using sensors for monitoring the flow rate, pressure, temperature, speed, and any basic elements of the manufacturing process (Lemoine, col. 1, lines 21-32 and Foster, col. 1, lines 6-8). It is considered inherent that those sensors measuring the parameters of the flow rate, pressure, temperature, and a cycle time or cure time within the manufacturing

process including a mold and a flowable resin in this process because monitoring those parameters would have been useful for optimizing the control for the manufacturing process.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang H. Cao whose telephone number is (703) 305 4469. The examiner can normally be reached on M-F (8:00am to 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703) 308 1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308 7382 for regular communications and (703) 308 7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306 3431.

TC
February 28, 2003

MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800